S/N Unknown **PATENT**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Karlheinz Haubennestel et al.	Examiner: Unknown
Serial No.:	Unknown	Group Art Unit: Unknown
Filed:	Herewith	Docket: 1238.006US2
Title:	BRANCHED POLYMERS CONTAINING IMIDAZOLE GROUPS AND THE PRODUCTION AND USE THEREOF (Continuation under 37 CFR 1.53(b) of U.S. Application SN 09/640,221, filed August 16, 2000)	

PRELIMINARY AMENDMENT

BOX PATENT APPLICATION
Commissioner for Patents
Washington, D.C. 20231

Prior to examination of the above-identified patent application, please amend as follows.

IN THE CLAIMS

Please cancel claims 9, 10 and 11 without prejudice.

Please substitute the claim set in the appendix entitled Clean Version of Pending Claims for the previously pending claim set. The substitute claim set is intended to reflect cancellation of claims 9, 10 and 11, amendment of previously pending claims 3, 4, 5 and 8, and addition of new claims 12-16. The specific amendments to individual claims are detailed in the following marked up set of claims.

1. Branched polymer, characterised in that it is derived from the following mixture of monomers:

(A) 50 to 93 wt.% of at least one ethylenically unsaturated monomer,

(B) 2 to 25 wt.% of at least one ethylenically unsaturated macromonomer with a molecular weight of 1,000 to 20,000 and

(C) 5 to 25 wt.% of at least one polymerisable imidazole derivative,

wherein components (A), (B) and (C) together make up 100 wt.%, the polymer possesses a molecular weight of 15,000 to 100,000 and is optionally present in the form of a salt.

2. [AMENDED] Branched polymer according to claim 1, wherein component (B) is present in a quantity of 5 to 15 wt.% and component (C) in a quantity of 10 to 20 wt.%.

3. (Amended) Branched polymer according to [one or more of claims 1 and 2] claim 1, wherein the molecular weight of the polymer is 25,000 to 75,000, preferably 30,000 to 50,000.

4. Branched polymer according to [one or more of claims 1 to 3] claim 1, wherein component (A) is optionally a hydroxyalkyl or an alkyl polyalkylene glycol acrylate or methacrylate, a styrene or derivative thereof or a vinyl ether and component (B) is a poly(meth)acrylate with terminal (meth)acrylic function or a monovinyl-terminated polydimethylsiloxane and component (C) is N-vinylimidazole.

5. (AMENDED) Branched polymer according to [one or more of claims 1 to 4] claim 1, wherein this is present as a salt of a fatty acid, a hydroxycarboxylic acid, a sulfonic acid, a sulfate, an acidic phosphate or an inorganic acid.

6. Process for the production of a branched polymer, characterised in that

(A) 50 to 93 wt.% of at least one ethylenically unsaturated monomer,

(B) 2 to 25 wt.% of at least one ethylenically unsaturated macromonomer with a molecular weight of 1,000 to 20,000 and

(C) 5 to 25 wt.% of at least one polymerisable imidazole derivative

are polymerised by free-radical polymerisation in the presence of an organic solvant and at least one radical initiator, at a temperature of 50 to 180°C, and the polymer thus obtained is optionally converted to its salt.

7. Process according to claim 6, characterised in that the organic solvent is an ester and the radical initiator is a peroxide or an azo compound.

8. (AMENDED) Process according to [one or more of claims 6 and 7] claim 6, characterised in that the reaction temperature is 90 to 150°C.

12. (NEW) A paint, paste or modeling composition comprising a pigment and/or filler and a branched polymer according to claim 1, wherein the branched polymer is a dispersing agent.

13. (NEW) The composition of claim 12 further comprising a binder.

14. (NEW) The composition of claim 12, wherein the branched polymer is used in a quantity of 0.5 to 100 wt.% based on the solid to be dispersed.

15. (NEW) A coating for powdered or fibrous solids comprising a branched polymer according to claim 1.

16. (NEW) The coating of claim 15, wherein the branched polymer is used in a quantity of 0.5 to 100 wt.% of the solid.

REMARKS

The claims have been amended for clarity and to remove multiple dependencies. Claims 3, 4, 5, and 8 are amended; claims 9-11 are canceled; and new claims 12-16 are added. Claims 1-8 and 12-16 are now pending in this application. These amendments are not intended to limit the scope of equivalents to which any claim element may be entitled. No new subject matter has been added to the claims. The amendments to the claims are fully supported by the specification as originally filed.

Respectfully submitted,

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"Express Mail" mailing label number: EL 873 858 499 US
Date of Deposit: December 7, 2001
This paper or fee is being deposited on the date indicated above with the United States Postal Service pursuant to 37 CFR 1.10, and is addressed to U.S. Patent and Trademark Office, Box Patent Application, P.O. Box 2327, Arlington, VA 22202.

CLEAN VERSION OF PENDING CLAIMS

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wherein components (A), (B) and (C) together make up 100 wt.%, the polymer possesses a molecular weight of 15,000 to 100,000 and is optionally present in the form of a salt.

2. Branched polymer according to claim 1, wherein component (B) is present in a quantity of 5 to 15 wt.% and component (C) in a quantity of 10 to 20 wt.%.

3. (AMENDED) Branched polymer according to claim 1, wherein the molecular weight of the polymer is 25,000 to 75,000, preferably 30,000 to 50,000.

4. (AMENDED) Branched polymer according to claim 1, wherein component (A) is optionally a hydroxyalkyl or an alkyl polyalkylene glycol acrylate or methacrylate, a styrene or derivative thereof or a vinyl ether and component (B) is a poly(meth)acrylate with terminal (meth)acrylic function or a monovinyl-terminated polydimethylsiloxane and component (C) is N-vinylimidazole.

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13. (NEW) The composition of claim 12 further comprising a binder.

14. (NEW) The composition of claim 12, wherein the branched polymer is used in a quantity of 0.5 to 100 wt.% based on the solid to be dispersed.

15. (NEW) A coating for powdered or fibrous solids comprising a branched polymer according to claim 1.

16. (NEW) The coating of claim 15, wherein the branched polymer is used in a quantity of 0.5 to 100 wt.% of the solid.